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INTRODUCTION

Primary responsibility for air pollution prevention and control lies with state and local government.[1] Nowhere is this legislative deference to local autonomy more evident than in California. California is the only state presently allowed by special waiver of federal preemption to conduct its own program of automobile emission control[2] under the sole administrative authority of the California Air Resources Board (ARB).[3] Prevention and control of non-vehicular air pollution within California is carried out by forty-three air pollution control districts, among which is the Bay Area Air Quality Management District[4] (BAAQMD or District).[5]

The ARB's authority is limited to coordinating the efforts of the local districts, which have primary responsibility for

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1. 42 U.S.C.A. § 7401 (West Supp. Pamph. 1978).

2. 42 U.S.C.A. § 7543 (West Supp. Pamph. 1978). California led the nation in identifying the link between photochemical smog and automobile exhaust. This discovery led, in 1961, to the creation of a program under the now-defunct Motor Vehicle Pollution Control Board to control automobile exhaust. When the federal government later preempted the field of automotive controls with the passage of the Air Quality Act of 1967, Pub. L. No. 90-148, 81 Stat. 485 (1968), California was granted a waiver to continue its existing program. Successive federal legislation, including adoption of the Clean Air Act Amendments of 1977, Pub. L. No. 95-95, §§ 207, 221, 91 Stat. 755 (1977), has perpetuated the so-called California Waiver. As long as California is able to demonstrate that the state has a unique need for more stringent controls, it will continue to be allowed to enforce its own automobile emission control standards.

3. CAL. HEALTH & SAFETY CODE § 39002 (West 1979).

4. Formerly the Bay Area Air Pollution Control District.

5. CAL. HEALTH & SAFETY CODE § 40002 (West 1979) establishes a control district for every county except those counties already included in preexisting multi-county districts. The multi-county districts are: Bay Area Air Quality Management District comprising Alameda, Contra Costa, Marin, Napa, San Francisco, San Mateo, Santa Clara, and portions of Sonoma and Solano Counties; Great Basin Valley Air Pollution Control District comprising Alpine, Inyo, and Mono Counties; Monterey Bay Unified Air Pollution Control District comprising Monterey, Santa Cruz, and San Benito Counties; South Coast Air Quality Management District comprising Los Angeles, Orange, Riverside, and San Bernardino Counties; and Yolo-Solano Air Pollution Control District comprising Yolo and portions of Solano Counties.

attaining and maintaining local air quality.[6] The state agency is empowered to assume enforcement duties if the local district fails in its responsibility.[7] Similarly, the Environmental Protection Agency (EPA) may assume enforcement upon a finding that the state has failed to adequately enforce laws or regulations embodied in the State Implementation Plan.[8] As a practical matter, broad-based, equitable, and vigilant enforcement, as opposed to selective, targeted enforcement, must necessarily be carried out at the local level.[9]

An effective enforcement program is crucial to the prevention and control of air pollution from non-vehicular sources. These sources include all stationary sources (such as factories), ships, and trains. The BAAQMD, created by the legislature in 1955 as the first regional air pollution control agency in the state, has a proven, effective enforcement program. The BAAQMD employs more than forty trained inspectors and five field engineers who maintain full-time surveillance of air pollution in the nine-county jurisdiction of the District.

This article will examine the BAAQMD's enforcement techniques and familiarize the reader with the variety of ways in which California's clean air laws are being implemented at the local level.

THE MEANS OF ENFORCEMENT

The enforcement of air pollution laws against stationary sources is at present, and for the foreseeable future will be, primarily accomplished at the local level of government. Enforcement embraces all of the means by which dischargers of air contaminants can be compelled to comply with applicable law. These include permit systems, injunctions, and civil and criminal penalties. Polluting operations may be abated, and must operate within emission limitations even when mechanical breakdowns or disruptions make compliance difficult, unless a variance can be obtained from a quasi-judicial hearing board.

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6. CAL. HEALTH & SAFETY CODE §§ 39002, 39003, 40000 (West 1979).

7. *Id.* § 39002.

8. 42 U.S.C.A. § 7413 (West Supp. Pamph. 1978).

9. It is apparent that the EPA has enough rudimentary administrative problems to cope with without added enforcement responsibilities.

Pursuant to 42 U.S.C.A. § 7410 (1978), the BAAQMD submits to ARB for approval and transmittal to EPA for final approval any regulations adopted or amended by the BAAQMD. It is not uncommon for the EPA to take more than 5 years to approve, disapprove, or otherwise act on the BAAQMD regulatory changes.

Permit Systems

The goal of every enforcement action is to obtain the polluter's compliance with emission standards. Levying fines or otherwise punishing offenders is merely coincidental to the efforts to assure compliance. To the extent that an effective permit system is the surest way to total compliance, the permit system is a local district's most important enforcement tool.

California's Health and Safety Code[10] authorizes local districts to establish permit systems requiring the issuance of a permit prior to the construction of any "contrivance which may cause the issuance of air contaminants,"[11] as well as a permit to operate after construction but prior to start-up.[12] The District may require an applicant to submit "information, analyses, plans, or specifications which will disclose the nature, extent, quantity, or degree of air contaminants" which may be discharged.[13] Conditions may be imposed on the permit to ensure that the applicant's operations will not interfere with the attainment or maintenance of ambient air quality.[14]

The BAAQMD adopted a permit system in 1972.[15] Under recent amendments[16] to the District's regulations, all sources that emit twenty-five tons or more of any contaminant per year must have a District-issued permit to operate.[17] There are thirty-four industries[18] emitting 500 or more tons of contami-

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10. CAL. HEALTH & SAFETY CODE §§ 42300-42313 (West 1979). Section 42311 authorizes the adoption of a permit fee schedule. Clearly, the best fee schedule is scaled, based on the quantity of emissions discharged by the permitted source whereby, for example, a source discharging 100 tons of air contaminants per year pays substantially more for its permit than a source discharging less than 5 tons. Such a fee system directly induces an operator to control emissions. Section 42311 seems to provide the requisite authorization, but local districts have been cautious about adopting fee structures based on the quantity of emissions.

11. *Id.* § 42300.

12. *Id.*

13. *Id.* § 42303.

14. *Id.* § 42301.

15. BAAQMD Reg. 2, div. 13 (1979).

16. Amendments adopted June 21, 1978.

17. BAAQMD Reg. 2, § 1317.3(C) (1979).

18. Facilities within BAAQMD's jurisdiction causing emissions in excess of 500 tons per year of any air contaminant for which there is a federal or state ambient air quality standard are:

Allied Pittsburg	Kaiser Aluminum	PG & E Oleum
C & H Sugar	Kaiser Cement	PG & E Pittsburg
Chevron	Lion 224	PG & E Potrero
Columbus Coated	Lion Oil	Pacific Refining

nants per year in the District. These so-called 500 tonners, the largest polluters in the District, have already been required to obtain permits.[19] Forty-seven other large polluters[20] (the 100 tonners) have also been brought within the BAAQMD permit system.[21]

Crown Zellerbach	Memorex	Pacific States Steel
Dow Chemical	Monsanto	Shell
DuPont	Owens-Illinois	Stauffer
Exxon	PG & E Antioch	Union Collier
Fibreboard	PG & E Avon	United Air Lines
Ford Motors	PG & E Hunters Point	Valley Nitrogen
General Motors	PG & E Martinez	Xidex

The BAAQMD's Permit Services section computes emissions based on emission data and source operations through-put capacities provided by the operating companies to the BAAQMD.

19. BAAQMD Reg. 2, § 1317.3(A) (1979).

20. Facilities within BAAQMD jurisdiction causing emissions in excess of 100 tons per year of any air contaminant for which there is a federal or state ambient air quality standard are:

Allied Chemical, Richmond
American Brass & Foundry
American Can (Oakland)
Atlantic Laminates
ARCO, Richmond
Ball Corporation
Bockway Glass, Oakland
Cal-Sweep
Caterpillar Tractor
Chevron, San Jose
Chevron Chemicals
Container Corp. (Santa Clara)
Continental Can (Hayward)
Crown Cork & Seal
Crown Zellerbach
Gallagher & Burke
Glass Containers (Antioch)
Glass Containers (Hayward)
Granite Rock
Hexcel
Hussman-California
K/Tronic
Kaiser Aluminum (Union City)
Kaiser Sand & Gravel
Kellogg Co.
Latchford Glass
Lone Star Industries
Mack Western
Mobil (Oakland)
National Can
Owens Corning
PG & E, Station T
Piazza Paving
Quarry Products (Brisbane)
Raisch (Mountain View)
Raisch (San Jose)
Reynolds Metals
San Jose Graphics
Southern Pacific Pipe Lines (Brisbane)
Southern Pacific Pipe Lines (San Jose)
Sunnyvale Air Force Station
Texaco (Richmond)
Union Oil, Richmond
U.S. Pipe & Foundary
U.S. Steel (Alameda)
U.S. Steel (Pittsburg)
University of California, Berkeley

21. BAAQMD Reg. 2, § 1317.3(B) (1979).

Regulation of Emissions

The basic enforcement device is the notice of violation issued against a polluter for violations of state law or local regulations. The most common infractions resulting in penalties and legal action involve excess emissions.[22] The emissions standards adopted by the BAAQMD are designed to ensure that the District attains and maintains ambient air quality according to standards set by the federal and state governments.[23]

The BAAQMD has enacted regulations directly limiting the emissions of specific contaminants, including particulate matter (smoke particles and dust), sulfur compounds, lead, nitrogen oxides, and odorous substances.[24] Identical or similar regulations have been enacted by other local air pollution control districts. In addition, regulations indirectly controlling pol-

22. The second largest category of violations resulting in payment of civil penalties involves hydrogen sulfide. Statistics during calendar years 1977 and 1978 for hydrogen sulfide violations are:

Total number of violation notices issued: 212

Total amount of civil penalties collected: $42,400

Major violators of hydrogen sulfide standard:

Company	Number of Violation Notices Issued
Crown Zellerbach	28
IT Environmental Corp.	25
Fibreboard	22
Legallet Wool Co.	22

These statistics are compiled by the BAAQMD Legal Department.

Ground level monitors placed strategically near identified sources of hydrogen sulfide emissions continuously record ground level concentrations. The monitor data is collected and evaluated for violations of BAAQMD Reg. 2, § 11101 (1979) that reads as follows:

> No person shall cause, let, permit, suffer or allow any emission of hydrogen sulfide which results in ground level concentrations of hydrogen sulfide at any given point in excess of the following concentrations: 0.06 ppm (vol) averaged over 3 consecutive minutes or 0.03 ppm (vol) averaged over 60 consecutive minutes in any 24-hour period from midnight to the next succeeding midnight. § 11101 shall not apply to the ground level concentrations occurring on the property from which such emission occurs, provided such property, from the emission point of any such concentration, is controlled by the person responsible for such emission.

23. Appendix A to this article shows a comparison of federal primary and secondary standards and California standards.

24. BAAQMD Regs. 2, 3 (1979). Appendix B to this article summarizes BAAQMD emission standards.

lution have been enacted to curtail open burning,[25] to require process changes to meet direct emission controls,[26] or to deny permits to inadequately controlled operations.[27]

During both 1977 and 1978, the BAAQMD collected more penalties for opacity violations than any other kind. Offenders ranged from ships and trains to small markets to large petroleum refineries.[28] The opacity standard is probably the oldest and most widely applied air pollution enforcement technique in the nation.[29] Opacity is the degree to which emissions reduce the transmission of light and obscure visibility of an object in the background. In simple terms, smoke obscures visibility, and opacity standards protect against obscured visibility. The denser the smoke, the greater the obscuration or opacity.

The easiest, oldest, and most economical method of measuring opacity is with the naked eye aided by the Ringelmann

25. BAAQMD Reg. 1 (1979).

26. An example is BAAQMD, Regulation 3, § 3101.3 (1979), limiting the emission of organic compounds to 3,000 pounds per day. The General Motors plant has reduced the number of hours it operates its automobile painting ovens in order to comply with the BAAQMD regulation.

27. BAAQMD Reg. 2, §§ 1307, 1309 (1979).

28. The following statistics reflect significant aspects of BAAQMD civil penalty enforcement activities during calendar years 1977 and 1978:

Civil penaties collected for all violations, including opacity and hydrogen sulfide: $430,692

Opacity Violations	Fines Collected
Issued to Ships: 220	Approximately $ 50,000
Issued to Industrial Facilities: 1247	Approximately $260,000

Major Violators of Opacity Standards

Company	Number of Violation Notices Issued
Exxon	128
Tosco Corporation (Lion Oil)	122
Pacific Gas & Electric	66
Chevron U.S.A.	54

These statistics were compiled by the BAAQMD Legal Department.

29. For example, the following jurisdictions impose 20% or less opacity limits: District of Columbia (D.C. Health Reg. 1(A)(1), § 8-2:713 (1979)); New York (N.Y. 6 N.Y. Codes, Rules & Regs. § 211.3 (1973)); Oregon (340 Ore. Admin. Rule Bull. § 21-015(1), (2) (1974)).

Chart.[30] The Ringelmann Chart is a graph containing various shades of grey coinciding with a dark plume of particulate emissions of an idicated denseness or opacity.[31] BAAQMD Regulation 2, section 3110, prohibits a plume of smoke to be a Ringelmann 1 or of equivalent opacity of twenty percent for three minutes in any hour.[32] The state standard of Ringelmann 2 or forty percent opacity applies in those districts that have not enacted a more stringent regulation.[33]

A trained inspector can, by comparing a plume seen against the sky with a Ringelmann Chart, either held in hand or kept in mind, form an accurate opinion about whether the plume violates an opacity standard. BAAQMD inspectors must qualify as smoke readers and periodically requalify[34] by reading plumes created by a mechanical smoke machine whose emissions are precisely measured by an in-stack opacity moni-

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30. Emission violations for other contaminants may be proved by sampling and laboratory analysis, by source testing, or by ground level or in-stack monitoring.

31. U.S. Bureau of Mines, Information Circular 7718 (Aug., 1955).

32. Section 3110 VISIBLE EMISSIONS. Except as provided in §§ 3111 through 3114, no person shall cause, let, permit, suffer, or allow the emission for more than three minutes in any one hour of a gas stream containing air contaminants which, at the emission point or within a reasonable distance of the emission point, is

Section 3110.1 As dark or darker in shade as that designated as No. 1 on the Ringelmann Chart as published in the United States Bureau of Mines Information Circular 7718, or

Section 3110.2 Of such opacity as to obscure an observer's view to a degree equal to or greater than does smoke described in § 3110.1; and the determination of such opacity shall be according to procedures in Chapter 6, Division 8.

BAAQMD Reg. 2, §§ 3110-3110.2 (1979).

33. CAL. HEALTH & SAFETY CODE § 41701 (West 1979):

Except as otherwise provided in Section 41704, or Article 2 (commencing with Section 41800) of this chapter other than Section 41812, or Article 2 (commencing with Section 42350) of Chapter 4, no person shall discharge into the atmosphere from any source whatsoever any air contaminant, other than uncombined water vapor, for a period or periods aggregating more than three minutes in any one hour which is:

(a) As dark or darker in shade as that designated as No. 2 on the Ringlemann Chart, as published by the United States Bureau of Mines, or

(b) Of such opacity as to obscure an observer's view to a degree equal to or greater than does smoke described in subdivision (a).

Note, exemptions from § 41701 are enumerated in § 41704.

34. BAAQMD inspectors are qualified as plume readers in accordance with 40 C.F.R. pt. 60, App. A, Method 9 (1977), and BAAQMD, Administrative Guidelines for Evaluating Plumes § E (Qualification Criteria for Evaluation of Visible Emissions) (Sept. 1, 1977).

tor. A trained BAAQMD inspector can estimate the opacity of a plume over a period of several minutes with a high degree of accuracy. To minimize subjective errors prejudicial to offenders, the BAAQMD takes enforcement action only when the opacity standard is exceeded for the requisite three minutes by ½ Ringelmann or more or the equivalent opacity of five percent.[35] Enforcement actions based on Ringelmann readings have been upheld despite a number of attacks made in both the California courts and the United States Supreme Court.[36]

The shortcomings of inspector-observed, Ringelmann-based, opacity violations are numerous. The density of a plume can be dispersed by wind or a larger diameter stack. Accurate Ringelmann readings can be taken only with the greatest difficulty at night, in the rain, or during high humidity. The answer to these shortcomings is the widespread utilization of in-stack monitors. Such monitoring devices, however, are expensive and will continue to be so for at least the next several years until technology advances the present state of the art. Nonetheless, the BAAQMD has required opacity monitors to be installed on several major sources of particulate emissions.[37] For the fore-

35. BAAQMD Reg. 2, § 3113.3 (1979).

36. *See, e.g.*, Air Pollution Variance Bd. v. Western Alfalfa Corp., 416 U.S. 861 (1974); People v. Plywood Manufacturers of Cal., 137 Cal. App. 2d 859, 291 P.2d 587 (1955), *appeal dismissed sub nom.* Union Oil Co. v. California, 351 U.S. 929 (1956); *see also* Northwestern Laundry v. Des Moines, 239 U.S. 486 (1916); People v. International Steel Corp., 102 Cal. App. 2d 935, 226 P.2d 587 (1951); State v. Lloyd A. Fry Roofing Co., 9 Or. App. 189, 495 P.2d 751 (1972).

The EPA has issued regulations requiring the continuous monitoring, recording, and reporting of emissions from specified equipment. 40 C.F.R. pt. 51, App. P (1977). Performance specifications for the monitoring devices are set forth in 40 C.F.R. pt. 60, App. B (1977).

37. BAAQMD Reg. 2, § 3210.5 (1979). Several companies within BAAQMD jurisdiction have been required to install and maintain continuous in-stack monitoring devices to measure NOx and CO2 or O2, or SO2, as well as opacity emissions. Accordingly, opacity monitors have been installed on the following equipment:

Company	Location
Chevron	Fluid catalytic cracking unit
Crown Zellerbach	#1 Boiler
Exxon	Main stack
Lion Oil	Fluid catalytic cracking unit, coker, and #6 boiler
PG & E	11 Boilers at 3 sites
Shell Oil	#4 Boiler and 2 CO boilers

In addition, BAAQMD has required opacity monitors at:

Company	Location
Kaiser Permanente	#2 Kiln and #5 kiln
PG & E	14 Boilers at 5 sites

seeable future, the BAAQMD will continue to rely upon both inspector evaluations and in-stack monitor readings to enforce opacity standards.

Regulation of Polluting Activities

To effectively control air pollution, it is not enough to establish and enforce general emission limitations. It is necessary to control particular activities which inevitably pollute. As the public demand for more stringent controls increases, and as abatement technology advances, increasingly technical regulations are being adopted requiring the use of sophisticated control devices.

The first regulation adopted by the BAAQMD in 1957, a prohibition against outdoor fires, was non-technical and narrow in purpose.[38] With important exceptions, notably for agricultural burning authorized by permit on specified "burn days" to clear land, replace crops, or prevent diseases and pests, all open fires for refuse disposal were prohibited.[39] Twenty years after adoption of this regulation, backyard burning and other non-agricultural fires have become a thing of the past within the jurisdiction of the BAAQMD. The state legislature has adopted similar controls applicable to those districts without regulations comparable to those in the Bay Area.[40] Just as the open outdoor fire regulations have minimized a major polluting activity, controls are now being placed on other common pollution-causing activities. In 1975, air pollution standards were adopted for sandblasting operations.[41] These standards impose a burden on sandblasters to adopt improved technology to assure compliance with opacity limits. Similarly, the control of hydrocarbon vapors and gases from gasoline storage tanks and pumps[42] is an important development in air pollution regulations tailored to control major emitters of organics and contributors to the formation of photochemical smog.

Public Nuisances

Not all air contaminants are visible. Some are invisible

38. BAAQMD Reg. 1 (1979) (originally adopted on March 20, 1957).
39. *Id.* § 1.
40. CAL. HEALTH & SAFETY CODE §§ 41850-41864 (West 1979).
41. *Id.* §§ 41900-41905.
42. *Id.* §§ 41950-41962.

and noxious. Odorous emissions of various kinds may cause discomfort, annoyance, or even injury, but are difficult to measure and control. To protect against offensive invisible emissions or visible emissions of a continuing nature, Health and Safety Code section 41700 proscribes emissions which constitute a public nuisance:

> Except as otherwise provided in Section 41705, no person shall discharge from any source whatsoever such quantities of air contaminants or other material which cause injury, detriment, nuisance, or annoyance to any considerable number of persons or to the public, or which endanger the comfort, repose, health or safety of any such persons or public, or which cause, or have a natural tendency to cause injury or damage to business or property.[43]

No reported California case has tested how many persons constitute a "considerable number of persons" or "the public." The BAAQMD prosecutes a public nuisance whenever verified complaints from five or more persons regarding the same source are reported in a single day. Whether a lesser number of complaints would support a successful prosecution is speculative. It is certain that more than one complaint is required by the statute. In New York, seven witnesses constituted the requisite "considerable number of persons" under a penal statute similar to Health and Safety Code Section 41700.[44] In the more recent case of *Application of the City of Johnstown,*[45] the New York court sustained the right of a water resources control board to cancel a municipal sewage permit because the discharge was held to constitute a public nuisance within the meaning of a penal statute defining nuisance in terms of a "considerable number of persons." The court's holding was based upon testimony as to noxious odors given by a "group of witnesses."[46]

The BAAQMD has found that relatively few violators who are cited for a public nuisance under Section 41700 contest the violation. The explanation no doubt reflects several factors, including the stigma which attaches to being adjudged a public nuisance, the resolve of the District, strengthened by complain-

43. *Id.* § 41700.

44. People v. Ehrlich, 14 N.Y.S.2d 125 (Magis. Ct. 1939).

45. Application of the City of Johnstown, 12 App.Div.2d 218, 209 N.Y.S.2d 982 (1961).

46. *Id.* at 219, 209 N.Y.S.2d at 984.

ing citizens, to prosecute nuisance actions, and the apparent acceptance of the District's determination that five complainants constitute a "considerable number of persons."

Injunctions

A valuable adjunct to the prohibition against nuisances is Health and Safety Code section 41513:

> Any violation of any provision of this part, or of any order, rule, or regulation of the state board or of any district, may be enjoined in a civil action brought in the name of the people of the State of California, except that the plaintiff shall not be required to allege facts necessary to show, or tending to show, lack of adequate remedy at law or to show, or tending to show, irreparable damage or loss.[47]

Armed with proof of a violation of Health and Safety Code section 41700 or section 41701, or any other emission limitation or local regulation, a district may obtain an injunction to force compliance with air pollution control laws.[48] The BAAQMD has generally been successful in persuading errant operators to initiate action necessary to comply with emission limitations without resorting to injunctive action. Nonetheless, as a deterrant, the very existence of section 41513 is a valuable enforcement device, a constant reminder that air pollution control districts have the power, at any time, to seek to enjoin noncomplying operations.

Civil Penalties

The statutory basis for civil actions brought by a local air pollution control district is Health and Safety Code section 42402 which provides:

> Any person who intentionally or negligently violates Section 41700 or 41701, or any rule or regulation of a district or of the state board issued pursuant to this part, prohibiting or limiting the discharge of air contaminants into the air, shall be liable for a civil penalty not to exceed five hundred dollars ($500) for each day in which such violation occurs.[49]

47. CAL. HEALTH & SAFETY CODE § 41513 (West 1979).
48. *Id.*
49. *Id.* § 42402.

The statute imposes a maximum penalty of $500 per day for a violation. In assessing the amount of the penalty for any particular violation, the court has discretion pursuant to Health and Safety Code section 42403[50] to consider relevant circumstances, including the harm caused, the nature, persistence, and duration of the violation, and corrective action. This latitude of discretion tends to result, in many cases that go to trial, in penalty assessments of less than the $500 maximum. As a practical matter, that tendency generally causes the BAAQMD to attempt a negotiated settlement prior to filing suit, or at least prior to trial. Actions to enforce air pollution laws are entitled to trial setting precedence, so when settlement negotiations fail to resolve a dispute the District may bring the case quickly to trial under Health and Safety Code section 42404.[51]

The most challenging aspect of civil air pollution litigation is proving, as required by Health and Safety Code section 42402, that the alleged violator either "intentionally or negligently" violated the applicable air pollution control law. Where, for example, the violator of an emission standard claims that the excess emissions were the result of an operational upset or mechanical breakdown of equipment, the District must ascertain the validity of that claim.[52] Even where the excesses are attributable to an upset or breakdown condition, the District may still be warranted in prosecuting the violation if the facts indicate that inadequate maintenance or failure to correct a repetitive problem caused the violation. Proving the requisite element of fault in such cases is sometimes difficult. Principally for that reason, the largest district in the state, the South Coast Air Quality Management District, prosecutes violations of emission limitations as strict liability criminal actions.

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50. *Id.* § 42403:

> The civil penalties prescribed in Sections 42401 and 42402 shall be assessed and recovered in a civil action brought in the name of the people of the State of California by the Attorney General, by any district attorney, or by the attorney for any district in which the violation occurs in any court of competent jurisdiction.
>
> In determining such amount, the court shall take into consideration all relevant circumstances, including, but not limited to, the extent of harm caused by the violation, the nature and persistence of the violation, the length of time over which the violation occurs, and corrective action, if any, taken by the defendant.

51. *Id.* § 42404.

52. *See* BAAQMD Reg. 2, §§ 3212-3212.6 (1979).

Criminal Sanctions

Health and Safety Code section 42400 makes an air pollution violation a misdemeanor:

> Any person who violates any provision of this part, or any order, rule, or regulation of the state board or of a district adopted pursuant to this part, is guilty of a misdemeanor.
>
> Every day during any portion of which such violation occurs constitutes a separate offense.[53]

Relying upon a United States Supreme Court decision and a recent California court of appeals case, the Los Angeles City Attorney has successfully prosecuted violations of Health and Safety Code section 41701[54] as strict liability offenses.[55] In finding that some crimes dispense with the element of intent, the United States Supreme Court included in that category "regulations which heighten the duties of those in control of particular industries, trades, properties, or activities that affect public health, safety or welfare."[56]

In the case of *People v. Travers*,[57] the Court indicated that the *Morrisette* exception to the requirement of criminal intent is recognized in California with respect to criminal statutes of a regulatory nature "enacted for the public morals, health, peace and safety,"[58] and that such statutes "are enforceable irrespective of criminal intent or criminal negligence."[59] The legislative intent to impose strict liability for such criminal offenses is evident, said the California court, where qualifying words such as "knowingly" or "intentionally" are absent.[60] Since Health and Safety Code section 41701 does not use qualifying words to define the offenses, and it is an enactment to protect the public health and safety, the South Coast Air Quality Management District has taken the position that it must be deemed a strict liability statute. So far, no one has successfully contested that position.

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53. CAL. HEALTH & SAFETY CODE § 42400 (West 1979).
54. *Id.* § 41701.
55. *See* B. Pines, Los Angeles City Attorney, Criminal Actions (presented at ARB Air Pollution Enforcement Symposium, Sept. 14-16, 1977).
56. Morrisette v. United States, 342 U.S. 246, 254 (1951).
57. People v. Travers, 52 Cal. App. 3d 111, 124 Cal. Rptr. 728 (1975).
58. *Id.* at 114, 124 Cal. Rptr. at 729.
59. *Id.*
60. *Id.* at 115-16, 124 Cal. Rptr. at 730.

DISTRICT HEARING BOARDS

The primary responsibility of local districts for air pollution control is given added dimension by the work of district hearing boards. Each district has a quasi-judicial hearing board consisting of five members empowered to grant variances,[61] issue abatement orders,[62] and revoke permits.[63] The expertise required of hearing board members[64] theoretically qualifies them to perform their specialized duties more proficiently than a civil court. Practitioners acquainted with both the BAAQMD Hearing Board and the municipal and superior courts in the Bay Area find that the practice is as sound as the theory.

Variances

The most common type of proceeding before the BAAQMD Hearing Board is upon the application of an operator for a variance from a district regulation.[65] In order to grant a variance, the Hearing Board must find, after an evidentiary hearing, that all of the following requirements of Health and Safety Code section 42352 have been met:

> (a) That the petitioner for a variance is, or will be, in violation of Section 41701 or of any rule, regulation, or order of the district.
>
> (b) That, due to conditions beyond the reasonable control of the petitioner, requiring compliance would result in either (1) an abitrary or unreasonable taking of property, or (2) the practical closing and elimination of a lawful business.
>
> (c) That such closing or taking would be without a corresponding benefit in reducing air contaminants.[66]

In variance cases, the District is the responding party and may, as the circumstances dictate, vigorously oppose the granting of a variance, urge the granting of a variance only with the adoption of specified terms, or adopt an objective, non-adversary position. Health and Safety Code section 42358 imposes time limits on variances, as well as the requirement that long term

61. CAL. HEALTH & SAFETY CODE § 42352 (West 1979).
62. *Id.* § 42451.
63. *Id.* § 42309.
64. *Id.* § 40801.
65. *Id.* § 42350.
66. *Id.* § 42352.

variances include a detailed progress schedule culminating in compliance by the offending operation with the regulation for which the variance is sought.[67]

Abatement

The second type of proceeding heard by the Hearing Board is an abatement action. The salient features of variance and abatement proceedings differ in three respects. In the former, the applicant is 1) a source operator, 2) trying to prove his good faith and diligence in controlling emissions, 3) who for reasons beyond his control needs temporary relief from the requirements of an emission limitation. In the latter, the applicant is 1) the BAAQMD, 2) seeking to prove that the source operator is a persistent and unjustifiable polluter, 3) whose operations should be abated.

The statutory authority for the issuance of an abatement order is contained in the following language of the Health and Safety Code section 42451:

> On its own motion, or upon the motion of the district board of the air pollution control officer, the hearing board may, after notice and a hearing, issue an order for abatement whenever it finds that any person is in violation of Section 41700 or 41701 or of any order, rule, or regulation prohibiting or limiting the discharge of air contaminants into the air.[68]

Hearing boards have no power to enforce an abatement order. Enforcement requires the District to prosecute a separate injunctive action in superior court pursuant to Health and Safety Code section 42453.[69] However, the penalty for violating

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67. *Id.* § 42358.

68. *Id.* § 42451. Regarding the requirements of CAL. HEALTH & SAFETY CODE § 42451 (West 1979), Kenneth A. Manaster, Chairman of the Hearing Board of the BAAQMD, observes:

> The inquiry—into the nature of the violations, the burden that compliance would impose on the source, the diligence or lack of it which has characterized the operation, and the actual air pollution effects—is very much the same in an abatement case as in a variance case, even though the statutory provision on abatement cases is so succinct as to be virtually silent regarding the pertinent issues in an abatement proceeding.

K. Manaster, Variances and Abatement Orders, The Work of Air Pollution Control District Hearing Boards in California 18 (presented at ARB Air Pollution Enforcement Symposium, Sept. 14-16, 1977). Professor Manaster's paper is a highly recommended study of the subject.

69. CAL. HEALTH & SAFETY CODE § 42453 (West 1979).

an order of abatement is $6,000 per day.[70]

Although the BAAQMD takes abatement action infrequently, the initiation of such proceedings usually yields satisfactory results. During the past two years, a variety of abatement cases have been successfully concluded.

One abatement order was issued against an excessively pluming ship requiring that corrective action be taken while the ship was in dry dock.[71] The order was complied with, corrective action taken, and the ship now operates in and out of San Francisco Bay in compliance with BAAQMD regulations.

In another case, the District sought an abatement order contemporaneously with Fibreboard Corporation's application for a variance from H_2S and TRS emission limits for its pulp mill operations in Contra Costa County.[72] The variance was denied and a conditional abatement order was issued. The progress schedule proposed by Fibreboard in its variance request was incorporated into the order of abatement. The prescribed corrective work was done. The District monitored the improved operations and determined that Fibreboard could operate without violating District regulations; whereupon the conditional abatement order was terminated by the Hearing Board.

An accusation for order of abatement was filed against an apartment building owner to shut down a non-complying single-chamber incinerator.[73] The owner dismantled the incinerator and the accusation was dismissed.

Another accusation was filed against Kaiser Cement and Gypsum for persistent alleged violations of the opacity standard from two kilns at its Permanente Cement plant.[74] The violations were based on in-stack monitor recorded excesses. Kaiser defended on the grounds that the monitors were not properly calibrated and incapable of accurate and reliable readings; that enforcement action based on in-stack monitor readings was not sanctioned by the District's opacity regulation; and that if excesses occurred they were the result of upset or breakdown conditions in the electrostatic precipitators con-

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70. *Id.* § 42401.

71. BAAQMD v. Keystone Shipping Co., BAAQMD Docket No. 610 (Jan. 19, 1978).

72. BAAQMD v. Fibreboard Corp., BAAQMD Docket No. 577 (May 12, 1977).

73. BAAQMD v. M.L. Strong, BAAQMD Docket No. 593 (July 14, 1977).

74. BAAQMD v. Kaiser Cement & Gypsum, BAAQMD Docket No. 609 (April 20, 1978); BAAQMD v. Dow Chemical Co., BAAQMD Docket No. 567 (Feb. 3, 1977).

trolling emissions from the two kilns. After several days of hearings over a period of several weeks, the District and Kaiser agreed that replacing all the electrodes in the precipitators would control emissions, enabling the two kilns to operate in compliance with opacity standards. The precipitators were repaired, and the parties entered into a stipulated order of dismissal.

Civil penalty action pursuant to Health and Safety Code section 42402 and abatement action pursuant to section 42451 are not mutually exclusive but are complementary. In each of the four cases mentioned above, the BAAQMD pursued concurrent action against the alleged violators for civil penalties. Satisfactory civil penalty settlements were reached in each case along with resolution of the abatement actions.

Revocation of Permits

The other major type of case heard by hearing boards are applications by the district to revoke operation permits and appeals by applicants from the denial of construction permits. The BAAQMD Hearing Board has had occasion to hear both varieties of permit cases.

In a highly important and interesting case presently before the California Court of Appeals, First Appellate District, Division Three, the District is seeking to revoke Chevron U.S.A.'s permit to operate a crude unit, or alternatively, to require operation in compliance with the express conditions of the permit to operate.[75] This case offers an insight into the work of a hearing board, and has considerable significance for the future of effective air pollution control enforcement.

In 1973, Standard Oil sought approval of the District to expand their Richmond refinery by building a new crude unit with a capacity of 175,000 barrels per day (bpd). The then-operating refinery crude capacity was 190,000 bpd. However, if certain deactivated units were put into service, the existing capacity was 270,000 bpd. BAAQMD regulations at the time did not allow an expansion but did allow "replacement."[76] The District permit regulation allowing replacement required that the applicant for a permit to replace old facilities show a reduc-

75. BAAQMD v. Standard Oil Co. of Cal., BAAQMD Docket No. 581 (Nov. 22, 1977); Standard Oil Co. v. Hearing Bd., 1 Civil No. 44602 (opening brief filed July 12, 1978).

76. BAAQMD Reg. 2, § 1311 (1979).

tion in the emission of each contaminant. In order to come within the replacement requirements of Regulation 2, section 1311, and keep capacity at approximately 270,000 bpd, Standard agreed to shut down two of three designated crude units while the new crude unit was in operation. The authorization to construct was issued on that basis.

Subsequently, a district regulation was adopted permitting "expansion" if the applicant showed that the emissions of each contaminant would be *significantly* reduced.[77] In late 1976 (the new crude unit having been built), a permit to operate, expressly imposing the two unit shut-down requirement, was issued. In defiance of the shut-down condition contained in both the authority to construct and the permit to operate, Standard operated all units at a capacity of 365,000 bpd.

The BAAQMD filed a request to revoke the permit to operate the new crude unit. Following protracted and extensive hearings, the Hearing Board issued an order revoking the permit to operate, or alternatively, requiring Standard to comply with the two-unit shut-down requirement.

Pursuant to Health and Safety Code section 40864,[78] Standard sought judicial review of the Hearing Board order by filing a petition for writ of mandamus in the Superior Court, Contra Costa County. The writ was granted and the BAAQMD appealed.[79]

The outcome of this case will, because of its significance for enforcement of the BAAQMD permit system, be watched carefully by the BAAQMD and air pollution enforcement agencies throughout the state.

CONCLUSION

The effective enforcement of air pollution control laws is based upon vigilance, fairness, and credibility. Vigilant inspection requires not only familiarity with the territory, but daily, routine surveillance. A state or federal enforcement program is necessarily remote from the day-to-day problems of pollution control. Only a local agency whose concerns, resources, and staff are primarily oriented to the local area served can maintain the requisite vigilance.

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77. *Id.* § 1311.2.

78. CAL. HEALTH & SAFETY CODE § 40864 (West 1979).

79. A decision is expected from the court of appeals in the summer of 1979.

Fairness and credibility are the cornerstones of effective enforcement. The inspectors, prosecution attorneys, and air pollution control officers must exercise their authority in such a way as to effectively bring violators into compliance. Punishment in the form of penalties and abatement orders is not a desirable goal in itself, but rather has validity only insofar as these means cause operators to control emissions so as to comply with air pollution laws. There are times when vigorous prosecution is the only reasonable course to follow, and other times when restraint or deferred action may be called for. The collective credibility of the local agency and its hearing board as a purposeful, competent, and fair enforcer of the law is its ultimate strength in cleaning up the air.

The Bay Area Air Quality Management District has earned a reputation for vigilance, fairness, and credibility. Its enforcement program may serve as a useful model to other, newer, local air pollution control districts.

APPENDIX A

COMPARISON OF FEDERAL AND STATE
AMBIENT AIR QUALITY STANDARDS*

Substance	Federal Standards		State Standard	Objective
	PRIMARY	SECONDARY		
SULFUR DIOXIDE				To prevent
Annual average	0.03 ppm	0.02 ppm		increase in
24-hour average	0.14 ppm	0.10 ppm	.05 ppm**	respiratory
3-hour average	0.50 ppm	0.50 ppm	—	disease, plant
1-hour average	—	—	0.50 ppm	damage & odor.
CARBON MONOXIDE				To prevent
8-hour average	9 ppm	Same	—	carboxyhemoglobin
1-hour average	35 ppm	Same	40 ppm	levels greater
12-hour average	—	—	10 ppm	than 2%.
OXIDANT				To prevent eye
1-hour average	0.08 ppm	Same	0.10 ppm	irritation, breathing difficulties.
PARTICULATE				
Annual average	75 $\mu g/m^3$	60 $\mu g/m^3$	60 $\mu g/m^3$	To improve
24-hour average	260 $\mu g/m^3$	150 $\mu g/m^3$	100 $\mu g/m^3$	visibility.
NITROGEN DIOXIDE				To prevent health
Annual average	0.05 ppm	Same	—	risk and improve
1-hour average	—	—	0.25 ppm	visibility.
NON-METHANE HYDROCARBON				To prevent oxidant
6-9 a.m. average	0.25 ppm	Same	—	build up.
LEAD				To prevent health
30-day average	—	—	1.5 $\mu g/m^3$	problems.
HYDROGEN SULFIDE				
1-hour average	—	—	0.03 ppm	To prevent odor.
VISIBILITY	—	—	10 miles or more when rel. humidity greater than 70%	To improve visibilty.

*The Strictest Air Quality Standard, whether State or Federal, applies in the Bay Area.
**In the presence of 0_3 and particulates.

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APPENDIX B

BAY AREA AIR QUALITY MANAGEMENT DISTRICT
SUMMARY OF EMMISSION CONTROL REGULATIONS

Pollutant	Standard		Regulation
Particulates	Opacity — Ringelmann 1 or Equivalent opacity	2	§3110
	Grain loading — 0.15 gr/SCF	2	§6112.1
	0.05 gr/SCF from incinerators > 100 Tons/Day	2	§4112.1
	Process weight — up to 40 lbs/hr. max.	2	§6112.2
	No incandescent particles from emission point	2	§6111.2
	Soot blowing for fuel oil combustion controlled	2	§5111.3
Sulfur Dioxide	Emission limit — 300 ppm or monitor at ground level	2	§3122
	Ground level — 0.5 ppm for 3 min.	2	§3123.1
	0.04 ppm for 24 hrs.	2	§3123.1
	SO_2 grain loading — 0.04 gr/SCF acid plants	2	§3131
	0.08 gr/SCF sulfur plants	2	§3131.1
Organic Gases	Emission limit —		
	25 ppm carbonyls from incinerators	2	§4113
	25 ppm hydrocarbons from incinerators	2	§4113
Hydrogen Sulfide	Ground level — 0.06 ppm for 3 min. average	2	§11100
	0.03 ppm for 1 hour per 24 hr. period		
Lead	Emission limit — 15 lbs/day	2	§12113
	Ground level — 1.0 $\mu g/m^3$ over background	2	§§12110, 12111
Nitrogen Dioxide	Emission limit —		
	Size > 250 million BTU 125 ppm for gas	2	§141111.1
	new or modified equip. 225 ppm for oil	2	§141111.2
	Size > 1750 million BTU 175 ppm for gas	2	§141111.5
	all heat transfer equip. 300 ppm for oil	2	§141111.6
Odorous Compounds	Emission limits from Type "A" emissions points	2	§15104
Trimethylamine	0.02 ppm		
Phenolic compounds	5.0 ppm		
Mercaptans	0.2 ppm		
Ammonia	5000 ppm		
Dimethylsulfide	0.1 ppm		
Organic Compounds	Emission limit —		
	300 ppm total carbon (50 ppm as hexane)	3	§3101
	Exemptions for source operations emitting 15 lbs/day	3	§3101.1
	having 5% reactive compound, or	3	§1214
	reducing organic gases by 85%	3	§3101.3
Permits Required	Authority to Construct and Operate (Permits) Issued or denied to protect air quality		
	Suspension if regulations violated	2	§§1301, 1302
Petroleum Products	90% effective vapor recovery for bulk fuel deliveries, storage at all service stations;		
	fuel pump controls for all service stations	2	§1302.2

This table is not a complete list of all emission limits. It is adapted from a table in BAAQMD, AIR POLLUTION AND THE SAN FRANCISCO BAY AREA (11th ed. 1977).